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(54) Title: BIODEGRADABLE POLYPHOSPHORAMIDATES FOR CONTROLLED RELEASE OF BIOACTIVE SUBSTANCES

(57) Abstract: The present invention is directed to a series of new polycationic biodegradable polyphosphoramidates. Process for making the polymers, compositions containing these polymers and bioactive ligands to enhance the cellular uptake ad intracellular trafficking, articles and methods for delivery of drugs and genes using these polymers are described. A gene delivery system based on these polymers is prepared by complex coacervation of nucleic acid (DNA or RNA) with polymers. Targeting ligands and molecules that could facilitate gene transfer can be conjugated to polymers to achieve selective and enhanced gene delivery. The current invention also provides a complex composition with buffering capacity.